

REMARKS

Claims 1-6 are pending in the present patent application. According to the Office Action mailed March 1, 2004, (i) claims 1-3 and 5-6 stand rejected under 35 U.S.C. § 103(a); and (ii) claim 4 stands rejected to as being dependent upon a rejected base claim, but allowable if rewritten in independent form.

After careful review of the cited references, Applicants respectively request reconsideration in view of the following remarks.

I. 35 U.S.C. § 103(a) Claim Rejections

Claims 1-3 and 5-6 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Leano et al., U.S. Patent No. 6,453,472 (Leano) in view of Roeck et al., U.S. Patent No. 6,594,305 (Roeck). Applicants respectfully traverse. To establish a *prima facie* case of obviousness, the cited references must teach or suggest all the claim limitations. (MPEP § 2142). Applicants submit that neither Leano nor Roeck separately or in combination, teach or suggest “a) dividing a dynamic range of the network client device into a plurality of regions; b) initiating at least one initial ranging in at least one of the regions using a certain power level; c) determining if a range response message is received from the network device; d) adjusting the power level and reinitiating step b) and c) till a range response message is received.” (Claim 1).

Leano teaches a ranging process to adjust power levels of cable modems. The power level may be adjusted such that the likelihood of cable modems not being heard by the head end is minimized. The adjusted power level value is incrementally increased (or decreased) in steps that are equal to the dynamic range until the adjusted power level reaches the desired power level. (Col. 9 line 62 -- Col. 10 line13). Thus, Leano teaches that “the cable modems gradually adjust their power levels in small incremental steps.” (Col. 10, lines 10-15).

Leano simply teaches that which is described in the Background of the present patent application. For example, the present patent application describes that the “Data-Over-Cable Service Interface Specification (DOCSIS) provides no guidelines as to how the power level should be adjusted for successive initial ranging attempts. The [DOCSIS] specification only specifies a dynamic range from 8 dBmV to 58 dBmV with power level control in 1dB increments.” (Specification, p. 7, lines 13-16); (emphasis added). In the same way, the method in Leano teaches the DOCSIS ranging process (e.g., “the cable modems gradually adjust their power levels in small incremental steps” (Col. 10, lines 10-15)).

As a result, Leano does not teach “a) dividing a dynamic range of the network client device into a plurality of regions; b) initiating at least one initial ranging in at least one of the regions using a certain power level; c) determining if a range response message is received from the network device; d) adjusting the power level and reinitiating step b) and c) till a range response message is received,” as in claim 1. Leano does not describe initiation of the ranging process in this manner. Leano teaches that the ranging process is initiated by the head end periodically providing an opportunity for ranging to the cable modem, and the cable modem responds by requesting the ranging. The head end then sends a message to the modem indicating that the modem must adjust its power level. (Col. 9, lines 40-48). Thus, Leano does not teach dividing a dynamic range of the network client device into a plurality of regions and then initiating an initial ranging in one of the regions, as in claim 1.

Similar to Leano, Roeck fails to teach initiation of a ranging process as in the present application. Roeck teaches a polling process to determine whether a link in a system utilizing cable modems is operational, regardless of the registration status of the modems in the system, using a ranging process to obtain information on the connectivity status of the modems. (Col. 7,

lines 1-2). The process includes a cable modem receiving an initial maintenance time slot (IMTS) from a CMTS, and responsively transmitting an initial RNG-REQ message to the CMTS including the modem's MAC address and message type to initiate ranging. (Col. 7, lines 5-28).

Similar to Leano, Roeck does not teach “a) dividing a dynamic range of the network client device into a plurality of regions,” “b) initiating at least one initial ranging in at least one of the regions using a certain power level,” and “d) adjusting the power level and reinitiating step b) and c) till a range response message is received,” as in claim 1. Roeck does not describe initiation of the ranging process in this manner. Roeck describes that initial ranging for a cable modem occurs when a cable modem is powered on and receives the IMTS signal. Roeck describes that the cable modem then sends a RNG-REQ message during a time interval specified in the initial maintenance message (IMTS). (Col. 6, lines 55-61). Thus, Roeck does not teach dividing a dynamic range of the network client device into a plurality of regions and then initiating an initial ranging in one of the regions, as in the present application.

Accordingly, Leano, which lacks teaching of initiation of the ranging process by dividing a dynamic range of the network client device into a plurality of regions and then initiating an initial ranging in one of the regions, combined with Roeck would not suggest all limitations in pending claim 1 in light of the disclosures in Roeck that teach away from the present invention, i.e., that ranging is initiated during a time interval specified in a received control message (e.g., IMTS message). Since a reference must be considered in its entirety including portions that would lead away from the claimed invention, the teachings in Roeck that conflict with the present invention invalidate the asserted obviousness rejection. (MPEP § 2141.02).

The asserted combination of Leano and Roeck does not describe initiation of the ranging process as in claim 1, and thus fails to teach or suggest all of the claim limitations of the pending

claims. Accordingly, since neither Leano nor Roeck, separately or in combination, teach or suggest all the claimed limitations of independent claim 1, and since Roeck teaches away from the present invention, the asserted obviousness rejection based on the combination of Leano and Roeck should be withdrawn.

II. Claim Objections

Claim 4 stands objected to as being dependent upon a rejected base claim, but allowable if rewritten in independent form including all limitations of the base claim and any intervening claim. Applicants gratefully acknowledge the Examiner's indication that claim 4 contains patentable subject matter. Applicants decline to rewrite claim 4 into independent format at this time. However, Applicants may do so at a later time.

III. Summary

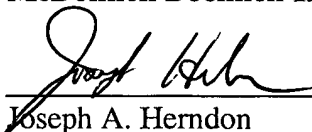
Applicants respectfully submit that, in view of the remarks above, the present application, including claims 1-6, is now in condition for allowance and solicit action to that end.

If there are any additional matters that may be resolved through a telephone interview, the Examiner is requested to contact Applicants' undersigned representative at (312)-913-0001.

Respectfully submitted,

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Date: 6/1/04

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